

- first display means (6) for displaying a first value which can be inputted via input means (3),
- communication means (4) for the decrypted transmission of the first value, together with an identification value, to the arithmetic unit (2),
- arithmetic means (5) for converting into a third value a second value which can be communicated by the arithmetic unit (2),
- second display means (7) for displaying the third value,
- third display means (8) for displaying a fourth value which can be inputted via the input means (3), the arithmetic means (5) being provided for the conversion of the fourth value into a fifth value and the communication means (4) being provided for the decrypted transmission of the fifth value, together with the identification value, to the arithmetic unit (2),

and the arithmetic unit (2) having

- storage means (10) for storing the first value and also for storing control values and limit values,
- first comparison means (11) for the comparison of the identification value with one of the control values,
- second comparison means (12) for the comparison of the first value with the limit values,
- arithmetic means (15) for the conversion of the first value into a second value,
- transmission means (14) for the decrypted transmission of the second value to the operator device (1), and
- third comparison means (13) for the comparison of the fifth value with the first value.

2. System according to claim 1,  
characterized in that

the arithmetic means (5, 15) are provided for the generation of a complement of the values.

3. System according to claim 1 or 2,  
5 characterized in that  
the arithmetic unit (2) has means for the release of the first value as a function of results of the comparisons of the comparison means (11, 12, 13).

10 4. System according to one of the preceding claims,  
characterized in that  
the first display means (6) and the second display means (7) are provided for the display of the first value and of the third value, respectively, in mutually different formatting.

15 5. System according to one of the preceding claims,  
characterized in that  
the operator device (1) has an abort function which can be activated via the input means (3).

20 6. System according to one of the preceding claims,  
characterized in that  
the arithmetic unit (2) has programmable monitoring means (16) for time-monitoring the communication of the first value and  
25 the fourth value.

7. System according to one of the preceding claims,  
characterized in that  
the operator device (1) has fourth display means (9) for the  
30 display of a further sixth value that is transmissible by the arithmetic unit (2).

8. System according to one of the preceding claims,

characterized in that  
the storage means (15) are provided for the diversitary storage  
of the control values.

5 9. System according to one of the preceding claims,  
characterized in that  
the input means (3) do not permit a drag & drop function.

10 10. System according to one of the preceding claims,  
characterized in that  
the arithmetic unit (2) has failsafe function means (17) for  
safely carrying out a function test of the operator device (1).

15 11. System according to one of the preceding claims,  
characterized in that  
the operator device (1) has means (18) for authenticating  
users.

20 12. System according to one of the preceding claims,  
characterized in that  
the system is part of an automation system.

13. Method for the reliable recording of input values, in which  
method, by means of an operator device (1),  
25 • a first value inputted via input means (3) is displayed  
with first display means (6),  
• the first value, together with an identification value,  
is transmitted decrypted to a failsafe arithmetic unit  
(2),  
30 • a second value communicated by the arithmetic unit (2) is  
converted into a third value,  
• the third value is displayed with second display means  
(7),

- a fourth value inputted via the input means (3) is displayed with third display means (8),
- the fourth value is converted into a fifth value, and
- the fifth value, together with the identification value,  
5 is transmitted decrypted to the arithmetic unit (2),  
and in which method the arithmetic unit (2)
  - stores the first value and also control values and limit values,
  - compares the identification value with one of the control  
10 values by means of first comparison means (11),
  - compares the first value with the limit values by means of second comparison means (12),
  - converts the first value into a second value,
  - transmits the second value decrypted to the operator  
15 device (1), and
  - compares the fifth value with the first value by means of third comparison means (13).

14. Method according to claim 13,  
20 characterized in that  
the arithmetic means (5, 15) each generate a complement of the values.

15. Method according to claim 13 or 14,  
25 characterized in that  
the arithmetic unit (2) releases the first value as a function of results of the comparisons of the comparison means (11, 12, 13).

30 16. Method according to one of claims 13 to 15,  
characterized in that

the first display means (6) and the second display means (7) display the first value and the third value, respectively, in mutually different formatting.

5 17. Method according to one of claims 13 to 16,  
characterized in that  
an abort function of the operator device (1) can be activated  
via the input means (3).

10 18. Method according to one of claims 13 to 17,  
characterized in that  
the timing of the communication of the first value and the  
fourth value is monitored by means of programmable monitoring  
means (16) of the arithmetic unit (2).

15 19. Method according to one of claims 13 to 18,  
characterized in that  
a further sixth value that is transmissible by the arithmetic  
unit (2) is displayed with fourth display means (9).

20 20. Method according to one of claims 13 to 19,  
characterized in that  
the control values are stored in a diversitary manner.

25 21. Method according to one of claims 13 to 20,  
characterized in that  
the input means (3) do not permit a drag & drop function.

30 22. Method according to one of claims 13 to 21,  
characterized in that  
failsafe function means (17) of the arithmetic unit (2) safely  
carry out a function test of the operator device (1).

23. Method according to one of claims 13 to 22,  
characterized in that  
the operator device (1) authenticates users.

- 5 24. Method according to one of claims 13 to 23,  
characterized in that  
the method is used for recording input values within an  
automation system.